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REGULATION OF COST AND QUALITY OF SERVICE AS ILLUSTRATED BY STREET RAILWAY COMPANIES.

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The conditions under which we approach the street railway problem at the present moment are peculiarly favorable for effective discussion. Until recently the indifference and corruption of public officials and the deliberate policy of falsification adopted by many street railway managers have conspired successfully to conceal the most fundamental facts regarding capitalization, cost of operation and profits. But patient and persistent effort has now wrested from imperfect public records and has wrung from reluctant officials enough facts to furnish an adequate basis for sound induction. We now have detailed studies of the street railway systems of several of our great cities, and a growing collection of valuable official investigations crowned by the comprehensive report of the Massachusetts special committee on street railways, published in 1898. We have therefore passed the period of sweeping generalizations from imperfect data and of misleading comparisons between American and European conditions founded on imperfect knowledge of both.

These investigations of the relations of the public to street railway corporations in most cases reveal a tragedy of errors. We are now paying the penalty of ignorance and recklessness in the bestowal of franchises. The penalty takes the form of excessive profits in our larger cities, of systematic corruption of our legislative bodies for the purpose of protecting these illegitimate profits, and of general overcapitalization which demoralizes the stock market and justifies the statement that current investments in railway

securities must be classed as extra hazardous. While in some cases the consequences of our unwise policy are limited to this generation, in others injustice to the public can be remedied only through infliction of heavy loss upon those who have made investments in good faith.

There is much confusion in the public mind regarding the financial results of street railway operations in the United States. It is the general belief that such enterprises, with present rates of fare and with light franchise burdens, are extraordinarily profitable. This is a correct impression with reference to the large city systems. It is incorrect so far as it relates to the railways in small communities and in suburban districts. The most reliable figures of street railway profits are those of Massachusetts. The report for 1899 shows that during the previous year forty-nine Massachusetts companies paid dividends ranging from $2\frac{1}{4}$ per cent to 8 per cent, while fifty-four companies paid no dividend. The forty-nine companies that showed profit were capitalized at \$33,649,950, while the fifty-four that made no profit represented only \$5,283,966. The average rate of dividend for all the companies was 5.8 per cent. And it should be remembered that the capitalization on which these dividends are declared is not excessive, so the rate indicates real return on investment. These results illustrate the general statement that street railway investments as a whole do not yield abnormal profit.

If we turn from these figures to those of New York, Philadelphia, Chicago and other large cities we find the justification of the general impression regarding street railway profit. The explanation of the moderate return of the small systems and the exorbitant profits in certain large cities is the general application of a customary rate of fare, five cents. This rate applied in many cases from the very early days is practically universal, regardless of the real cost of service. The rigid adherence to custom in this particular embarrasses the small systems where operating expenses are relatively large,

and enriches the large city companies that have the benefit of concentrated traffic with a considerable proportion of short distance riders. It is only in the great cities, then, that we may reasonably expect material reduction of fare or large increase of contributions to the public treasury. But in these communities there is wide margin for readjustment on one or both of these lines.

The possibilities of controlling rates and character of service in such a way as to realize the fullest benefit for the public are conditioned largely upon the form of franchise. We have to deal with three general forms in the United States—the unlimited, the indeterminate and the term.

The unlimited franchise was quite generally granted in the earlier years of street railway development and is still permitted in half of our states. The peculiar features of this form are admirably illustrated by the Philadelphia system, although strictly speaking Philadelphia franchises are not unlimited, for they are subject to the reserved right of municipal purchase. But this provision has been entirely ignored by public and railway managers during more than forty years of development, and the system has been built upon the assumption of perpetual right to occupy the streets on terms fixed more than a generation ago.

The glaring evil of this form of franchise is the difficulty of readjusting the compensation for monopoly privileges as the community grows and the conditions change. In addition to this manifest weakness, there is the peculiar temptation to overcapitalization in communities where present profits are large and future possibilities of profit are still greater. Overcapitalization is an evil not confined to companies holding perpetual franchise, but it is most serious under that form. The Philadelphia system exhibits the worst possibilities of the unlimited grant in this direction. The profits of many of the lines have been excessive from the very beginning. As early as 1864 one line was earning 45 per cent dividend on actual investment,

another 28 per cent, two more about 20 per cent, and the entire system was averaging nearly 10 per cent on paid-in capital. In the early eighties these large profits attracted the attention of a coterie of bold financiers who have since become famous in the street railway world as the "Philadelphia syndicate." They quietly bought large blocks of stock and then formed an operating company in 1883 to lease the original lines at very high rentals. Ten years later all the original companies except one had been leased by three traction companies, and in 1895 these three operating companies were absorbed by the present Union Traction Company. The monopoly is now perfect.

The abnormal profit is indicated by the lease charges paid by the Union Traction Company. One important line receives a guaranteed annual dividend of 72 per cent on paid-in capital, another 71.6 per cent, a third 42.8 per cent and eight other lines a dividend ranging from 40 to 20 per cent on actual investment.

During the various consolidation processes the capitalization has been inflated in the familiar way until the total net capitalization of the system is now above \$108,000,000, which is more than three times its cost of construction and equipment as reported by the companies. The investigation made three years ago showed that the market value of the stocks of the company then exceeded \$120,000,000 while the company's figures of the total cost of the system were only \$36,000,000. Thus accepting the exaggerated cost figures of the company, Philadelphians are expected to pay for their street car service the market rate of interest on more than three and one-half times the capital actually invested.

Excessive inflation on the plan indicated by the Philadelphia system is invariable in large cities wherever the unlimited franchise prevails. Comparative figures of capitalization per mile of track indicate the extent of this evil in the two greatest cities which have unlimited franchises.

As a standard of fair capitalization of a system in a large city we may take the figures of the West End Company of Boston. This company reports a capitalization of \$103,655 per mile, and the Massachusetts railroad commission declares, after special investigation, that 92 per cent of that amount represents actual value of plant. It is possible that this figure is excessive, but assuming it as a conservative estimate, we have about \$95,360 as a reasonable capitalization per mile for a thoroughly equipped road with heavy city traffic. In comparison with this, Mr. Edward E. Higgins, editor of the *Street Railway Journal*, estimates the average capitalization per mile of the surface railways of the boroughs of Manhattan and the Bronx at \$348,387; of greater New York at \$201,381; and of Philadelphia at \$265,510.

Such overcapitalization as is here indicated as a special characteristic of the unlimited franchise makes the readjustment of fares and franchise charges on an equitable basis difficult for the public and most painful for the investors. Many of the present holders of securities have reaped no benefit from the inflation process. Those who received the exorbitant returns through inflation of stock values have either sold their securities or are prepared to do so at the first symptom of forced contraction. The extent of the loss to recent investors in many of our great cities, if the public ever demands service at cost, is indicated by the facts for Philadelphia. With gross earnings of \$11,793,858 the Union Traction Company last year paid \$5,634,726 as guaranteed dividends on the stock of constituent companies and interest charges on bonds. Five per cent interest on the real investment which these stocks and bonds represent, at the most liberal estimate, would be less than \$1,800,000, so a contraction of these inflated values would mean a reduction of more than \$3,800,000 in annual interest payment to the stockholders of Philadelphia railways. But until that great sacrifice is exacted either by reducing fares or by increasing taxation, the public will not secure transportation

on the terms which an efficient system of public ownership and operation would give. This is the most serious phase of the street railway problem under the unlimited franchise.

The second form of franchise with which we have to deal is that represented by the peculiar Massachusetts system of indeterminate franchise which may be revoked at the pleasure of the local authorities with the approval of the state railroad commission. This plan gives the public power to readjust franchise compensation at any time in the simplest fashion. The careful supervision of the Massachusetts railroad commission has prevented gross overcapitalization in that state, and the railways are therefore in a position to grant without disturbance to their financial organization any reasonable demands which the public may make.

While this plan of indeterminate franchise seems ideal from the standpoint of the public, it appears extraordinary that the investor is willing to undertake street railway operations with no definite tenure of location. The Massachusetts special committee on the relation between cities and towns and street railway corporations, appointed in 1897, was instructed to consider the advisability of modifying this form of franchise, but it reports that investigation showed that neither the municipalities nor the companies desired to change the system. The report declares that "It was evident that, while the municipalities wanted to retain as a weapon—a sort of discussion bludgeon—the right of revocation at will, the companies preferred, on the whole, a franchise practically permanent, though never absolutely certain, to a fixed contract tenure for a shorter term, subject to the danger of alteration at every periodic renewal."

It seems unlikely, however, that other communities will seriously consider the plan which has apparently worked well under special conditions in the progressively conservative state of Massachusetts. The District of Columbia is the only other locality where this form prevails.

The third form of franchise is the term contract, which has

been used in a few of our states from the earliest days of street railway development, and has been most fully developed in Europe. In most cases in this country the franchise term is between twenty and thirty years, but Wyoming has fixed ten years as the maximum period. The tendency at present seems to be toward a twenty year term.

The short term franchise is now generally accepted as the best system of regulating the relations of municipalities and street railway corporations. Under this plan the operating company has certainty of tenure and the municipality has relatively frequent opportunity to readjust the conditions of franchise to meet changing needs of the city. The ownership of the tracks by the municipality, which is usual in Europe, simplifies the lease terms and will probably be adopted as a general policy here very soon as a concession to the growing sentiment in favor of municipal ownership and management.

The question of the price of franchise privileges presents grave difficulties in the adjustment of the details in each special locality, but the broad principles upon which the contract should be framed are well defined by experience. The practice in the United States has been most confused and irregular. It is usual for the local authorities to prescribe one or more of the following charges as compensation for the grant of location: a tax on gross earnings, a dividend tax, car licenses, street paving and lighting. In addition, the real and personal property of the railway companies are usually taxed at the regular rates. And finally the state frequently subjects the street railways in common with other corporations to a tax on capital, dividends or on gross receipts.

Under an ideal system the local charge for franchise, which is the special price of the monopoly privilege, is adjusted in such a way that it will absorb all the net profit from the operation of the railways above a fair return to the capital invested. In the cities where street railway

enterprises at the customary fare of five cents are exceedingly profitable, the public may choose between two methods of arranging conditions. They may dispose of the franchise to the corporation that offers the lowest fare, and thus realize little in the form of contributions to the city treasury. Or they may stipulate the customary fare of five cents and provide for large public income from the railways. This latter form manifestly levies a special tax on users of street cars which is collected by the corporations.

The payment for franchise privileges has been exacted in this country under various forms. In the early days it was usual to require the companies to pave and repair the streets which were occupied by their tracks. This form of franchise payment has assumed greatest importance in Philadelphia, where it is the largest element of the local income from street railway franchises. The duty of paving was imposed by the original franchise grants, but it was generally neglected until 1892, when trolley privileges were secured. Then as the specific price of these favors, the city was transformed in a few years from one of the worst to one of the best paved cities in the United States, at an expense to the companies variously estimated at from \$9,000,000 to \$14,000,000. But even in view of this achievement an examination of the unfortunate experience of Philadelphia before the trolley period confirms the experience of other cities that this form of franchise payment is burdensome and vexatious. The city should never entrust the care of its highways to a street railway corporation, which has no business interest in their proper maintenance.

A still more unwise, but very common franchise exaction, has been the tax on cars. When this was first imposed, its constitutionality was questioned, and a Pennsylvania judge affirmed its validity on the ground that it was a proper police measure to prevent the obstruction of the public highway by an excessive number of cars. It is still very effective from the point of view of the learned judge.

A third form of charge is the tax on dividends. This has been incorporated in a large number of contracts, but although it is most alluring in theory this tax has been found very difficult to collect. With the imperfect supervision to which railway corporations have been subjected, the manipulation of dividends has been too easy to make the dividend tax desirable.

The fourth form of franchise charge is the one approved by sound theory—the tax on gross receipts. The fairness of a tax on receipts is generally recognized. Moreover, gross receipts are more easily ascertained than any other financial fact, and the assessment is therefore simple. With our present lack of adequate supervision of street railway accounts, this tax is therefore peculiarly desirable.

Our experience, then, would seem to indicate that the ideal system of adjusting the relations of the municipality and street railway corporations, if we are to retain private management, is public ownership of tracks with private operation under a term contract for a period not exceeding twenty years. The contract should stipulate the lowest possible fare which promises a reasonable return on investment and should provide for a progressive tax on gross receipts.

The oft-cited contract which Toronto made in 1891 is a capital illustration of this form of franchise. The twenty years' lease under which the Toronto railways are operated by a corporation, provides first for an annual payment of \$800 per mile of track, which is specific rental for the track which is owned by the city. In addition, the company pays a percentage of gross receipts rising by degrees from 8 per cent on receipts of less than \$1,000,000 to 20 per cent on receipts of over \$3,000,000. Ordinary fares are six tickets for twenty-five cents. For early morning and late afternoon hours eight tickets for twenty-five cents are sold, and the fare of school children at specified hours is only two and one-half cents.

If the suggested system of special payment to the city for franchise privileges be adopted and the terms arranged so

that the railway corporation shall pay the full value of its monopoly right, the general taxation will be very simple. The railway corporation virtually stripped of special privilege will stand in precisely the same position as any other industrial enterprise. It should pay local taxes on real estate and on personal property, if other holders are thus assessed. If the state derives a revenue from corporation taxes, the street railway corporation should bear its share on precisely the same basis as any other industrial undertaking. The much discussed Ford bill of New York which adds the value of franchises to the value of real estate for purposes of taxation, is an admirable measure as applied to street railways under present conditions, since the railways have not paid an adequate price under local contract for their monopoly rights. But under a term contract framed on the lines of the Toronto or of European agreements the payment for franchise right is exacted more easily and more perfectly than it can possibly be obtained through the principle of the Ford bill or of the earlier Massachusetts tax law of similar purport.

The ominous discontent of the public with existing franchise terms and the rapid growth of the desire for public ownership and operation are moving managers of unduly profitable systems to consider concessions. The *Street Railway Journal*, the leading technical publication in that field, recently urged upon its constituency a proposition that coming from such a source would have been startling a few years ago. The editor proposed that the gross receipts of a street railway company be distributed as follows: First deduct from the receipts the operating expenses, state and local taxes on real estate and personal property, amortization fund, reserve fund, employes' benefit fund, and finally 4 per cent interest on capital. Then make an equal division of the remainder of the gross receipts between the municipality and invested capital. Such a plan applied to our large railway systems would yield a very considerable public revenue.

None of our great cities realize an adequate price for franchise privileges. Philadelphia is among the most fortunate. The city and state absorb about 12 per cent of the gross receipts of the Union Traction Company. The possibilities for greater public revenue have already been indicated by the facts with reference to excessive dividend rates. Baltimore is another favored city. The public treasury will receive this year about 10 per cent of gross receipts. The other great cities are far behind those cited. The Metropolitan system of New York, for instance, with its immense earning power, pays only $5\frac{1}{2}$ per cent of gross receipts to the city and state. The railways of Massachusetts pay about $4\frac{1}{2}$ per cent of gross earnings in the form of taxes.

No phase of American street railway history is so humiliating as the almost unbroken record of failure on the part of the public to exercise reasonable powers of control over the corporations. The difficulties have been of two kinds--legal and administrative. In many cases defective laws have conferred powers of control in such vague terms that any attempt to interfere with the management has led to protracted litigation. In other cases where the right of public control is clearly expressed, the corporations have found it cheaper to corrupt legislatures and administrative officials than to accept reasonable regulation of service under the law. The right of public control in the absence of specific contract provisions is ill defined at the present moment. The general police power has been invoked to regulate the number of cars, the hours of labor of employes, and in at least one case to reduce fare. We greatly need clear legal definition of the extent of the power of control beyond the special provisions of the charters and ordinances.

Manifestly a prime essential of effective public control is publicity of accounts. Until recently the corporations have generally refused statements of real financial conditions.

The few statements extorted from them by public officials have been so confused in form or so meagre in detail that they were quite valueless. In Pennsylvania, for instance, traction companies corrupted the state officials when the consolidation process began, and substituted for the complete sworn returns of the earlier days a balance sheet which meant nothing. The sworn report to the auditor general of Pennsylvania as a basis of taxation is still held by that officer as confidential. This policy of secrecy is happily near its end, for the toleration of the public has been strained to the breaking point. Moreover the managers of the corporations now realize that the prevalent belief that all street railway enterprises are enormously profitable is fostered to a dangerous degree by secrecy, and the instinct of self-preservation is inducing them to proffer information and to court investigation wherever their management can bear the light. The carefully drawn statements prescribed by the Massachusetts commission, returned under oath and subject to the check of access to the books by the commissioners, are models of the kind of official reports needed for intelligent control of the conditions of service.

A state commission seems to be the best device for control, in spite of certain obvious defects, and the Massachusetts commission is a good type. One of the chief functions of such a board is to control capitalization. The excellent system of Massachusetts shows the possibilities of effective work along this line. A railway company wishing to increase its stock or bond issue must prove to the satisfaction of the railroad commissioners that the increase of capitalization will find expression in a real addition to the value of the property of the company. Furthermore the commission is charged with the duty of forcing a reduction of capitalization as the value of the plant decreases. The success of Massachusetts in holding the capitalized value close to the real value of railway property suggests the adoption of a similar plan in all of our states.

The regulation of fare, the number of cars, the maximum length of the working day for employes, the provision of safety devices and the control of other similar conditions of service should be vested in the local councils, with a conservative provision for appeal to the state commission. With insistence upon publicity of accounts and with clear and reasonable provisions for control on the principles already established in Massachusetts, the larger part of our street railway difficulties will disappear. If these measures are not generally adopted with reasonable promptness, the reaction against corporate abuses will speedily carry us over to municipal ownership and operation. There are plain indications that the public are likely to fly to ills they know not of rather than bear those they have.

After this review of our street railway situation, in which much has necessarily been said of shortcomings and failures, we should not fail to note the gleam of consolation in our experience. As we examine the contracts of European cities with their street railway corporations, and note how thoroughly the financial interest of the municipality is safeguarded and how complete are the provisions for public control, we are likely to draw comparisons which are very unfavorable to the best of our American franchises. But when we contrast the imperfectly developed systems of the foreign cities with our own magnificent reaches of lines and our excellent equipment, we must revise our judgment and concede something to the credit side of our account. As a somewhat extreme instance of a general condition, contrast Glasgow, a city of 800,000 inhabitants with seventy-three miles of tramway, with Boston, a city of 500,000 inhabitants and two hundred and twenty miles of track. The more complete systems and the superior equipment of our American railways cannot be ascribed wholly to differences in franchise terms, but there can be no doubt that American liberality, even recklessness, toward street railway corporations has encouraged them to push out their lines and perfect

their equipment. The rapid extension of track encouraged by our prodigality of franchise, in connection with our system of uniform fare, regardless of distance, has undoubtedly helped to save our cities from the worst evils of excessive crowding, which is such a serious problem abroad. It is conceivable that viewed in the perspective of a half century it will appear to our successors that the heavy price we have paid in past profits, in present overcapitalization and in political corruption has not been too great for the benefits of a well-developed system of local transportation, with its relatively wide distribution of city population. It is at least clear that if we now revise our franchise conditions in the light of the knowledge gained by costly experience we shall presently enjoy the best street railway service in the world at reasonable rates.